

IN THE TITLE

Change the title wherever it appears to read as follows:

--Nitride Semiconductor Device with Improved Lifetime and High Output

Power--.

IN THE ABSTRACT

Insert the attached Abstract after the claims pages. A marked-up Abstract is also attached.

IN THE CLAIMS

Cancel claims 1 and 16.

Please substitute the following amended claims for corresponding claims previously presented. A copy of the amended claims showing current revisions is attached.

a<sup>2</sup> 3. (Amended) The nitride semiconductor device according to Claim ~~24~~<sup>1</sup>, wherein said active layer has L ( $L \geq 2$ ) barrier layers so that the barrier layer arranged in a position nearest to said n-type nitride semiconductor layer is denoted as barrier layer B<sub>1</sub> and the i-th barrier layer (i=1, 2, 3, ..., L) counted from the barrier layer B<sub>1</sub> toward said p-type nitride semiconductor layer is denoted as barrier layer B<sub>i</sub>; and barrier layers B<sub>i</sub> from i=1 to i=n ( $1 < n < L$ ) include an n-type impurity.

4. (Amended) The nitride semiconductor device according to Claim ~~24~~<sup>1</sup>, wherein the entire barrier layers other than said first barrier layer include an n-type impurity.

a<sup>3</sup> 5. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein said first barrier layer is arranged in the outermost position in said active layer.

6. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein said second barrier layer is arranged in the outermost position close to said n-type nitride semiconductor layer within said active layer.

a<sup>4</sup> 9. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein at least one well layer within said active layer has a film thickness of not less than 40 Å.

10. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein said first barrier layer has a p-type impurity.

11. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein said first barrier layer includes a p-type impurity in the range of no less than  $5 \times 10^{16} \text{ cm}^{-3}$  and no more than  $1 \times 10^{19} \text{ cm}^{-3}$ .

12. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein said first barrier layer is p-type or i-type.

a<sup>5</sup> 14. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein said n-type nitride semiconductor layer, said active layer and said p-type nitride semiconductor layer are layered in sequence.

15. (Amended) The nitride semiconductor device according to Claim ~~24~~, wherein said p-type nitride semiconductor layer has an upper clad layer made of a nitride semiconductor that includes Al of which the average mixed crystal ratio x is in the range of  $0 < x \leq 0.05$ ;

Concluded  
As  
said n-type nitride semiconductor layer has a lower clad layer made of a nitride semiconductor that includes Al of which the average mixed crystal ratio x is in the range of  $0 < x \leq 0.05$ ; and

the nitride semiconductor device has a laser device structure.

Q6  
16. ~~17~~. (Amended) The nitride semiconductor device according to Claim ~~24~~<sup>1</sup>, wherein said first p-type nitride semiconductor layer is provided so as to contact a barrier layer nearest to said p-type nitride semiconductor layer and has been grown being doped with a p-type impurity of which concentration is higher than that of said barrier layer in said active layer.

17. ~~18~~. (Amended) The nitride semiconductor device according to Claim ~~24~~<sup>1</sup>, wherein the number of well layers in said active layer is from 1 to 3.

18. ~~19~~. (Amended) The nitride semiconductor device according to claim ~~24~~<sup>1</sup>, in said active layer said second barrier layer is arranged between well layers and the film thickness ratio  $R_t$  ( $=$  [film thickness of a well layer] / [film thickness of a barrier layer]) of said well layer to the second barrier layer is in the range of  $0.5 \leq R_t \leq 3$ .

19. ~~20~~. (Amended) The nitride semiconductor device according to claim ~~24~~<sup>1</sup>, wherein the film thickness  $d_w$  of said well layer is in the range of  $40 \text{ \AA} \leq d_w \leq 100 \text{ \AA}$  while the film thickness  $d_b$  of said second barrier layer is in the range of  $d_b \geq 40 \text{ \AA}$ .

20. ~~21~~. (Amended) The nitride semiconductor device according to Claim ~~24~~<sup>1</sup>, wherein said p-type nitride semiconductor layer has an upper clad layer made of a nitride semiconductor that includes Al and said n-type nitride semiconductor layer has a lower

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*Amended*  
clad layer made of a nitride semiconductor, wherein the average mixed crystal ratio of Al  
in the upper clad layer is greater than that of the lower clad layer.

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*a7*  
~~22. 23.~~ (Amended) The nitride semiconductor device according to Claim ~~24~~<sup>1</sup>,  
wherein said active layer has a well layer of which distance dB from the first p-  
type nitride semiconductor layer is in the range of no less than 100 Å and no more than  
400 Å and has a first barrier layer within the distance dB.

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Add the following new claim:

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~~1. 24.~~ (new) A nitride semiconductor device wherein an active layer is sandwiched  
between p-type nitride semiconductor layers and n-type nitride semiconductor layers,  
wherein said p-type nitride semiconductor layers has an electrons confining layer  
adjoining said active layer and made of nitride semiconductor that includes Al;  
and said active layer has a quantum well structure including at least one well layer  
made of nitride semiconductor that includes In and barrier layers made of nitride  
semiconductor, wherein a first barrier layer arranged in the nearest position to said p-type  
nitride semiconductor layer among said barrier layers substantially does not have an n-  
type impurity, while a second barrier layer that is different from said first barrier layer  
has an n-type impurity.--

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